

## CLAIMS

1. (Currently amended) A biosensor measuring instrument, comprising:

a substrate having a first section and a second section, an operational electrode and a counterpart electrode spaced-apart from each other and formed on ~~said the~~ first section, a first resistor connected with ~~said the~~ operational electrode in series, and a first terminal and a second terminal formed on ~~said the~~ second section; wherein ~~said the~~ operational electrode and ~~said the~~ counterpart electrode constitute a second resistor  $R_s$ , and the resistance of ~~said the~~ first resistor is equal to or greater than a maximum resistance of ~~said the~~ second resistor  $R_s$ , ~~said the~~ operational electrode and ~~said the~~ counterpart electrode respectively electrically connected to ~~said the~~ first terminal and ~~said the~~ second terminal, ~~and said first terminal and said second terminal being configured for electrical connection to a main detecting unit of a biosensor, said main detecting unit is used for detecting a response current passing through said the operational electrode; and~~

a reaction layer at the first section of the substrate for at least partially covering the operational electrode and the counterpart electrode, wherein the said response current is generated in response to a voltage applied to the operational electrode and a specific component of a specimen that reacts with the reaction layer applied on said chip.

2. (Currently amended) The instrument of claim 1, wherein ~~said the~~ operational electrode and ~~said the~~ counterpart electrode ~~have are comprised of~~ the same conductive material.

3. (Currently amended) The instrument of claim 1, wherein the reaction layer comprises an enzyme type, and wherein the ~~said~~ specific component of ~~said the~~ specimen to be detected depends on ~~said the~~ enzyme type of ~~said the~~ reaction layer.

4. (Currently amended) The instrument of claim 3, wherein ~~said chip is used for detecting the reaction layer is configured to react with~~ a glucose concentration of a blood sample.

5. (Currently amended) The instrument of claim 3, wherein ~~said chip is used for detecting the reaction layer is configured to react with~~ a lactic acid concentration of saliva.

6-18. Cancelled

19. (Currently amended) The instrument of claim ~~48~~ 1, wherein the reaction layer includes a redox mediator ~~and an enzyme~~, ~~said the~~ redox mediator and ~~said the~~ specific component of ~~said the~~ specimen applied on ~~said the~~ chip proceeding an electrochemical reaction under catalysis of ~~said the~~ enzyme.

20. (Currently amended) The instrument of claim ~~48~~ 1, further comprising a spacer over at least a portion ~~said of the~~ reaction layer.

21. (Currently amended) The instrument of claim 20, further comprising a cover over ~~said the~~ spacer, ~~said the~~ cover having an opening through which ~~said the~~ specimen can be introduced.

22-32. Cancelled

33. (New) A biosensor measuring instrument comprising:  
a substrate having a first section and a second section;  
a first lead terminal and a second lead terminal each formed on the second section of the substrate;  
a counterpart terminal electrode formed on the first section of the substrate, the counterpart terminal electrode electrically connected to the second lead terminal;  
an operational terminal electrode formed on the first section of the substrate, the operational terminal electrode electrically connected to the first lead terminal, wherein the operational terminal electrode and the counterpart terminal electrode constitute a first resistor having a first resistance;  
a second resistor on the substrate, the second resistor having a second resistance substantially equal to or greater than the first resistance of the first resistor, wherein the second resistor is serially connected with the operational terminal electrode; and  
a reaction layer covering the operational terminal electrode and counterpart terminal electrode, wherein the reaction layer is configured to react with a specimen to modify a response current passing through the operational terminal electrode.

34. (New) The instrument of claim 33, wherein the second resistor includes a resistor electrically connected between the operational terminal electrode and the first lead terminal.

35. (New) The instrument of claim 33, wherein the second resistor includes a widened portion of the counterpart terminal electrode and a widened portion of the operational terminal electrode.

36. (New) The instrument of claim 33, wherein the second resistor includes a bent strip portion of the counterpart terminal electrode and a bent strip portion of the operational terminal electrode.

37. (New) The instrument of claim 36, wherein the bent strip portion of the counterpart terminal electrode is substantially the same dimension as the bent strip portion of the operational terminal electrode.

38. (New) A biosensor measuring instrument for determining the blood sugar level of a specimen, the instrument comprising:

a substrate having an operational terminal electrode and a counterpart terminal electrode respectively connected to first and second lead terminals;

a reaction layer including a redox mediator and an enzyme and covering the operational terminal electrode and counterpart terminal electrode, wherein a current passing

through the operational terminal electrode is determined in part according to a reaction of the reaction layer with a specimen;

a spacer disposed over the reaction layer, and a cover disposed over the spacer, wherein the operational terminal electrode and the counterpart terminal electrode constitute a first resistor having a first resistance; and

a second resistor serially connected with the operational terminal electrode, the second resistor having a second resistance substantially equal to or greater than the first resistance of the first resistor.

39. (New) The instrument of claim 38, wherein the second resistor includes a resistor electrically connected between the operational terminal electrode and the first lead terminal.

40. (New) The instrument of claim 38, wherein the second resistor includes a widened portion of the counterpart terminal electrode and a widened portion of the operational terminal electrode.

41. (New) The instrument of claim 38, wherein the second resistor includes a bent strip portion of the counterpart terminal electrode and a bent strip portion of the operational terminal electrode.

42. (New) The instrument of claim 41, wherein the bent strip portion of the counterpart terminal electrode is substantially the same dimension as the bent strip portion of the operational terminal electrode.

43. (New) A biosensor measuring instrument comprising:  
a substrate having a first section and a second section;  
a first lead terminal and a second lead terminal each formed on the second section of the substrate;  
a reactive means covering the first section of the substrate, wherein a response current passing between the first and second lead terminals is determined in part according to a reactive state of the reactive means;  
a first resistive means on the first section of the substrate for providing a first resistance between the first and second lead terminal; and  
a second resistive means on the substrate for providing a second resistance substantially equal to or greater than the first resistance of the first resistor, wherein the second resistive means is serially connected with the first resistive means.

44. (New) The biosensor measuring instrument of claim 43, wherein the reactive state of the reactive means varies according to a specimen being measured.

45. (New) The biosensor measuring instrument of claim 38, wherein the second resistor is serially connected between the first resistor and the lead terminal.